

III. In the Claims (Marked Version)

Please amend the claims as follows:

1. (Four times Amended) A vaccine for the prevention of *Campylobacter* colonization in animals [comprising] consisting essentially of an effective amount of chicken antiserum raised against a flagellaless *Campylobacter* strain wherein the antiserum recognizes a 97 kD (+/-5 kD), a 60 kD (+/-5 kD), and a 13 kD (+/-3 kD) band on a Western Blot.

9. (Twice Amended) A vaccine for the prevention of *Campylobacter jejuni* colonization in poultry comprising an effective amount of chicken antibodies against the antigenic protein [comprising] consisting essentially of a protein of a *Campylobacter* having a molecular weight of 97 kD (+/- 5kD), whereby it is visible in a Western blot with antibodies against a flagellaless mutant of *Campylobacter jejuni* and that it is not visible after incubation of said blot with antibodies against the wild type *Campylobacter jejuni*.

IV. Remarks

A. Rejections Under 35 USC §102(b)

1. Rejection of Claims 1-2 and 9 by Blaser I

Claims 1-2 and 9 stand rejected under 35 USC §102(b) as being anticipated by an article to Blaser et al. in a journal titled Infection Immunity, Vol. 53(1), July 1986, pp. 47-52 (hereinafter referred to as Blaser I). The Examiner states, from the first office

action, that the claimed invention of Claims 1 and 2 are directed to a vaccine composition of antiserum directed to a flagellaless strain of *Campylobacter jejuni*. The Examiner further states that Claim 9 is directed to an antigen protein of *Campylobacter*.

Applicants assert that Blaser I does not disclose a vaccine for the prevention of *Campylobacter* colonization in animals consisting essentially of an effective amount of chicken antiserum raised against a flagellaless *Campylobacter* strain wherein the antiserum recognizes a 97 kD (+/-5 kD), a 60 kD (+/-5 kD), and a 13 kD (+/-3 kD) band on a Western Blot.

Applicants have amended Claims 1 and 9 to indicate that the antiserum is raised in chickens, not rabbits as disclosed by Blaser I. Blaser I utilized rabbit anti-flagellum antiserum. (See Blaser I, p. 47, col. 2). Accordingly, Blaser I does not disclose Applicant's invention.

Moreover, Blaser I specifically states that the flagellar strain is a more appropriate model for a vaccine. See Blaser I, pp. 48-51, Results. Blaser I concludes that "the definition of common flagellar antigens may be of value for taxonomic and diagnostic purposes, development of a subunit type vaccine, and study of virulence mechanisms. (See Blaser I, p. 52, last ¶). Accordingly, Blaser I teaches that flagella is of primary importance for vaccine preparation.

However, Applicants have demonstrated that the prior art belief that flagellar strains were important for vaccine development is incorrect. Applicants, for the first time, have results that indicate that it can be concluded that repeated daily passive immunization with serum against wild type *Campylobacter* or with unvaccinated chicken control serum had no effect on cecal colonization by wild type *Campylobacter* if

compared to untreated control chickens (at 5 days as well as 10 days after challenge). As Table 1a illustrates, all three groups showed high levels of cecal colonization by *Campylobacter* (up to greater than 10^8 CFU per gram cecal content). In sharp contrast, passive immunization with antiserum according to the present invention (i.e. raised against a flagella negative mutant, flagellaless) resulted in elimination of wild type *Campylobacter* from ceca (or prevented colonization). Accordingly, Applicants have illustrated surprisingly results, as the prior art taught the flagella isolate was the appropriate vaccine candidate.

2. Rejection of Claims 1-3 by Cawthraw

Applicants have amended the claims and request reconsideration. Cawthraw does not teach or disclose a vaccine for the prevention of *Campylobacter* colonization in animals consisting essentially of an effective amount of chicken antiserum raised against a flagellaless *Campylobacter* strain wherein the antiserum recognizes a 97 kD (+/-5 kD), a 60 kD (+/-5 kD), and a 13 kD (+/-3 kD) band on a Western Blot. Accordingly, in light of this response, the rejection should be removed. Applicants' amendment and response has overcome the rejection.

V. Conclusion

Applicants respectfully request reconsideration of the rejections in light of this response. The application is believed in a condition for allowance and Applicants respectfully request such action. Please charge deposit account number 02-2334 for any

required fees.

Date:

11/12/02

Sincerely,

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